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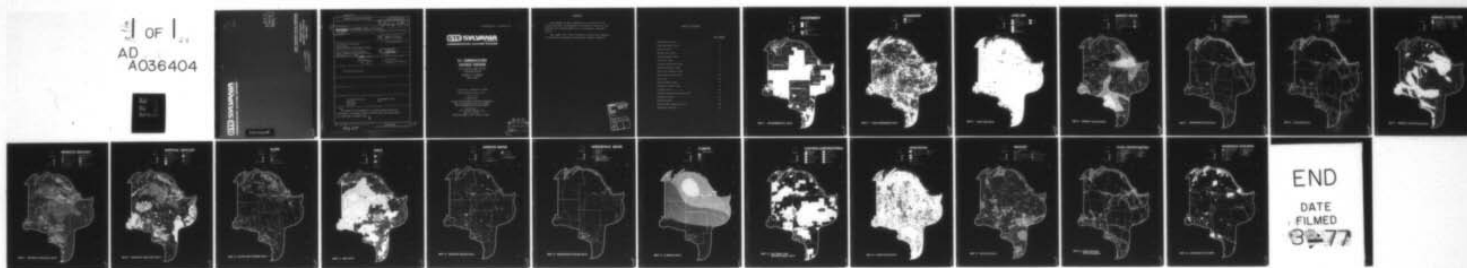
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ELF COMMUNICATIONS SEAFARER PROGRAM--SITE SURVEY. MICHIGAN REGI--ETC(11)
APR 76

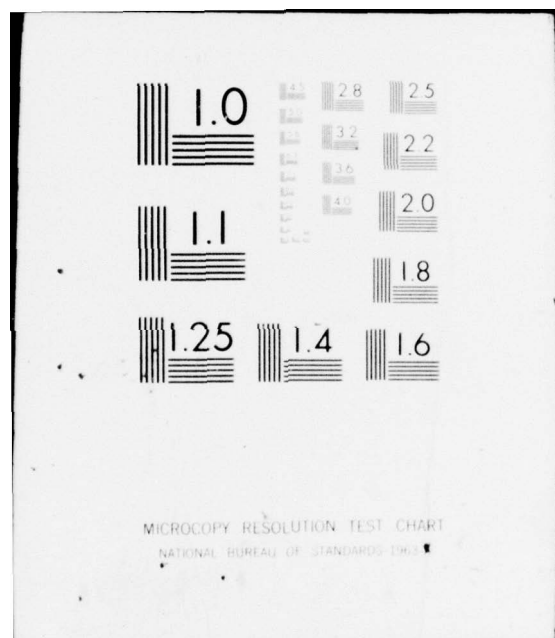
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GTE SYLVANIA
INCORPORATED
COMMUNICATION SYSTEMS DIVISION ✓

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SITE SURVEY FINAL REPORT

Michigan Region
Appendix to Summary
(Data Maps)

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| ⑥ ELF Communications Seafarer Program -- Site Survey. Final Report , Michigan Region, Appendix to Summary (Data Maps). | | | |
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| GTE Sylvania Incorporated 189 B Street Needham Heights, Massachusetts 02194 | | | |
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| 20. ABSTRACT (Continue on reverse side if necessary and identify by block number) | | | |
| The purpose of this Appendix is to provide detailed data maps (referenced in the Summary Volume of the Michigan Site Survey Report) in a convenient, unfolded format. | | | |

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GTE SYLVANIA
INCORPORATED
COMMUNICATION SYSTEMS DIVISION

**ELF COMMUNICATIONS
SEAFARER PROGRAM**

SITE SURVEY FINAL REPORT
MICHIGAN REGION

APPENDIX TO SUMMARY
(DATA MAPS)

Contract No. N00039-75-C-0309

CDRL SEQUENCE NO. B006

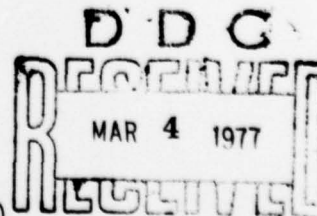
April 1976

Prepared for:

NAVAL ELECTRONIC SYSTEMS COMMAND
Special Communications Project Office
ELF COMMUNICATIONS DIVISION

Prepared by:

GTE Sylvania Incorporated
189 " B " Street
Needham Heights, Massachusetts 02194



FOREWORD

The purpose of this appendix is to provide the detailed data maps (referenced in the Summary volume of the Michigan Site Survey Report) in a convenient, unfolded format.

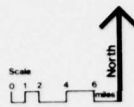
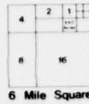
The reader will find it helpful to have this appendix at hand while progressing through the Summary material.

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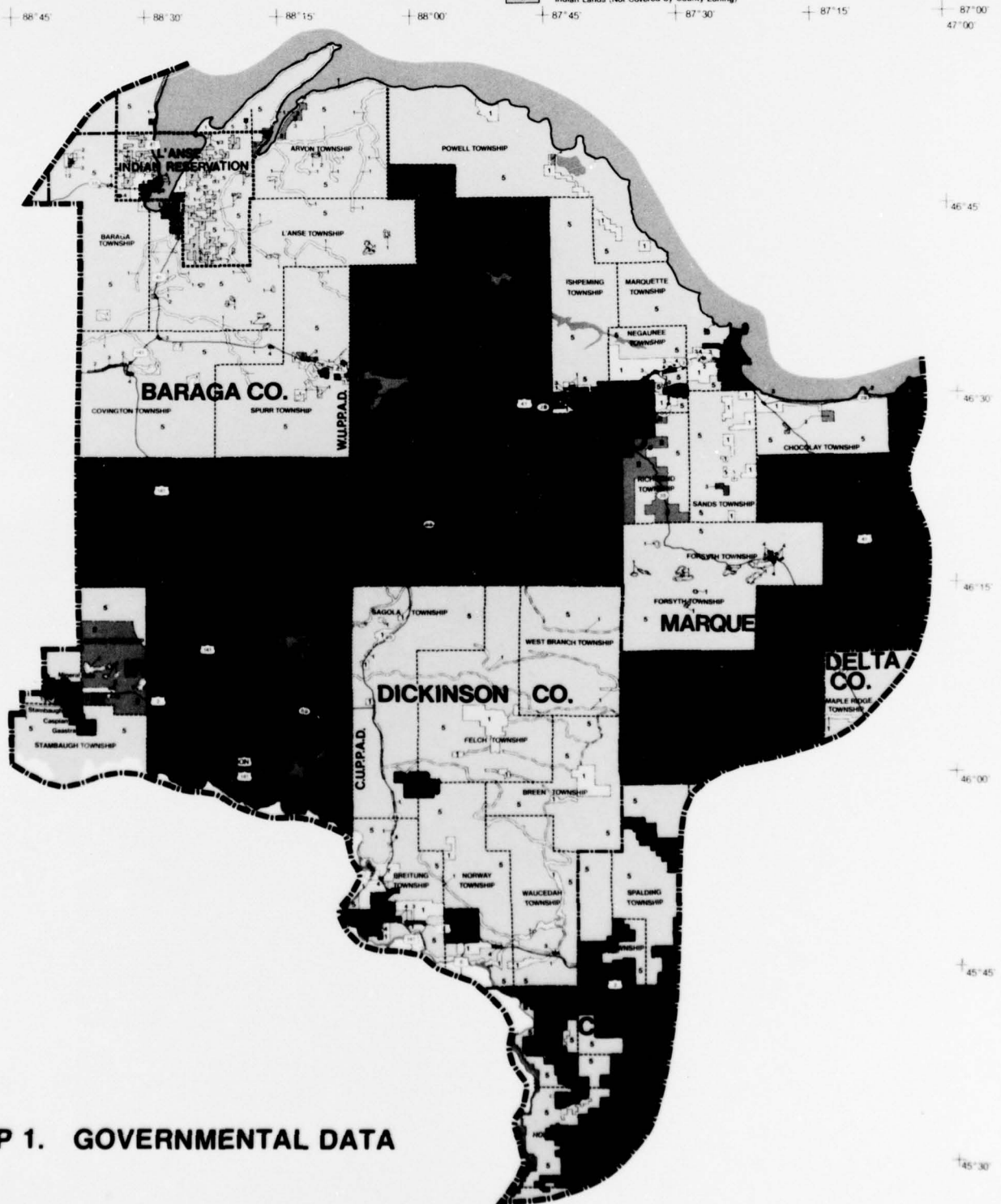
| | <u>MAP NUMBER</u> |
|--|-------------------|
| Governmental Data | 1 |
| Land Ownership Data | 2 |
| Land Use Data | 3 |
| Market Value Data | 4 |
| Transportation Data | 5 |
| Utilities Data | 6 |
| Mineral Extraction Data | 7 |
| Bedrock Geologic Data | 8 |
| Surficial Geologic Data | 9 |
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GOVERNMENT

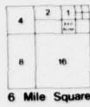


BOUNDARIES
Planning Region
County
Township
Corporate
Indian Reservation
Zoning

ZONING CLASSIFICATION (See Text)
Residential
Residential / Commercial
Commercial
Industrial
Agriculture
Unrestricted
Indian Lands (Not Covered by County Zoning)



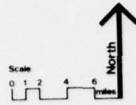
MAP 1. GOVERNMENTAL DATA



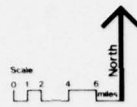
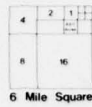
OWNERSHIP



Private Land
Government Land
Corporate Land



LAND USE



BOUNDARIES

- Corporate
- Planned Development
- Water & Waste Water Service Area
- Special Land Use Area (See Text)

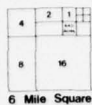
SETTLEMENTS (See Text)

- Urban
- Rural
- Building Cluster
(Circle Size Varies to Enclose Settlement Structures)

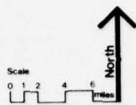
- Cemetery
- Prison Facility



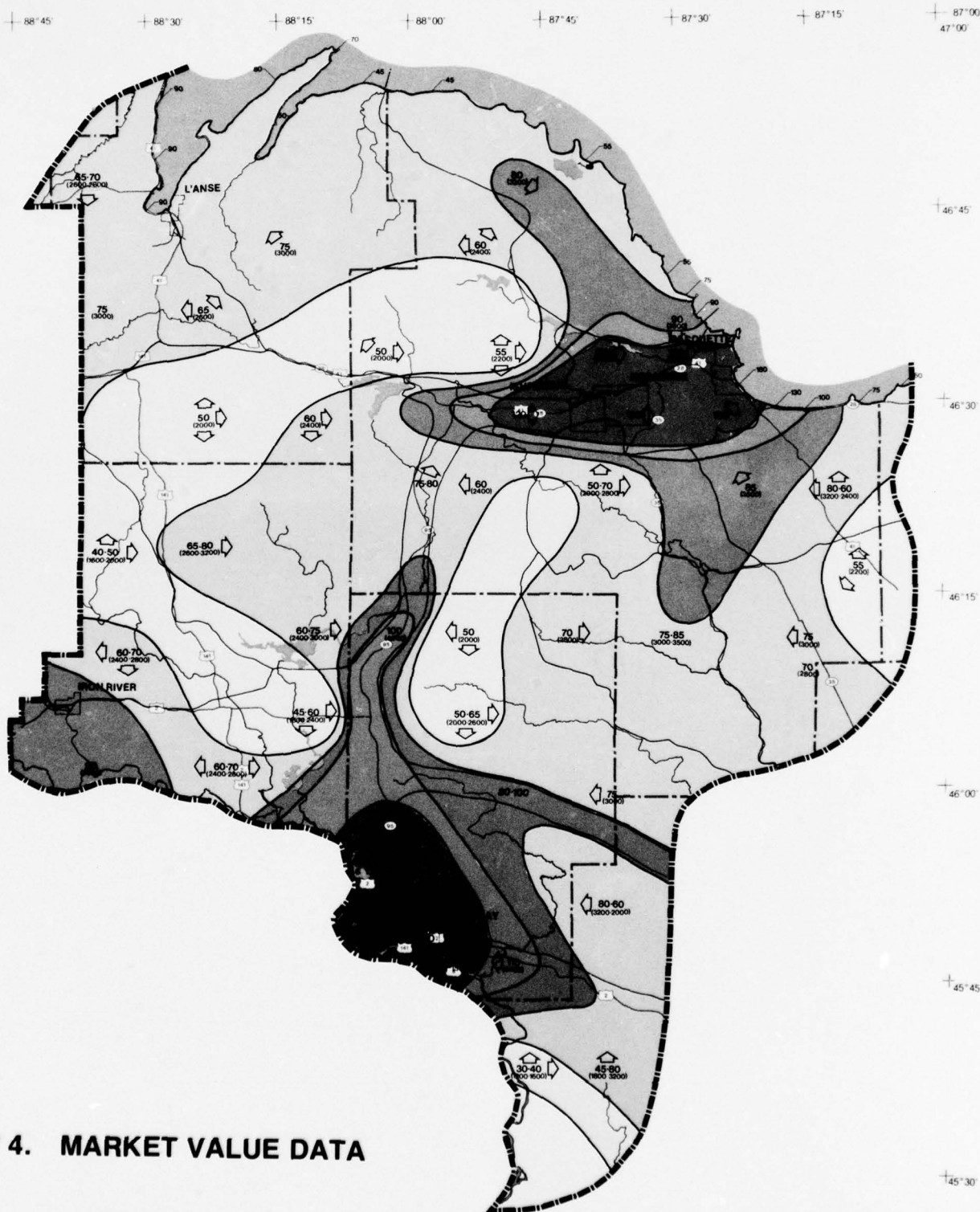
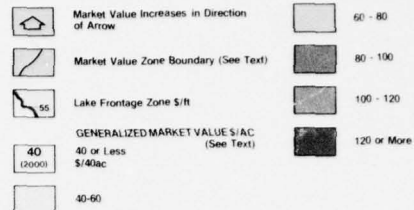
MAP 3. LAND USE DATA



6 Mile Square

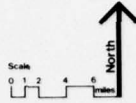
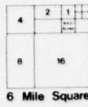


MARKET VALUE



MAP 4. MARKET VALUE DATA

TRANSPORTATION



All Season Truck Route
All Season Truck Route (Special Designation)
Seasonal Truck Route
Other Paved Road
Gravel Road
Good Dirt Road
Poor Dirt Road
Railroad
Abandoned Railroad

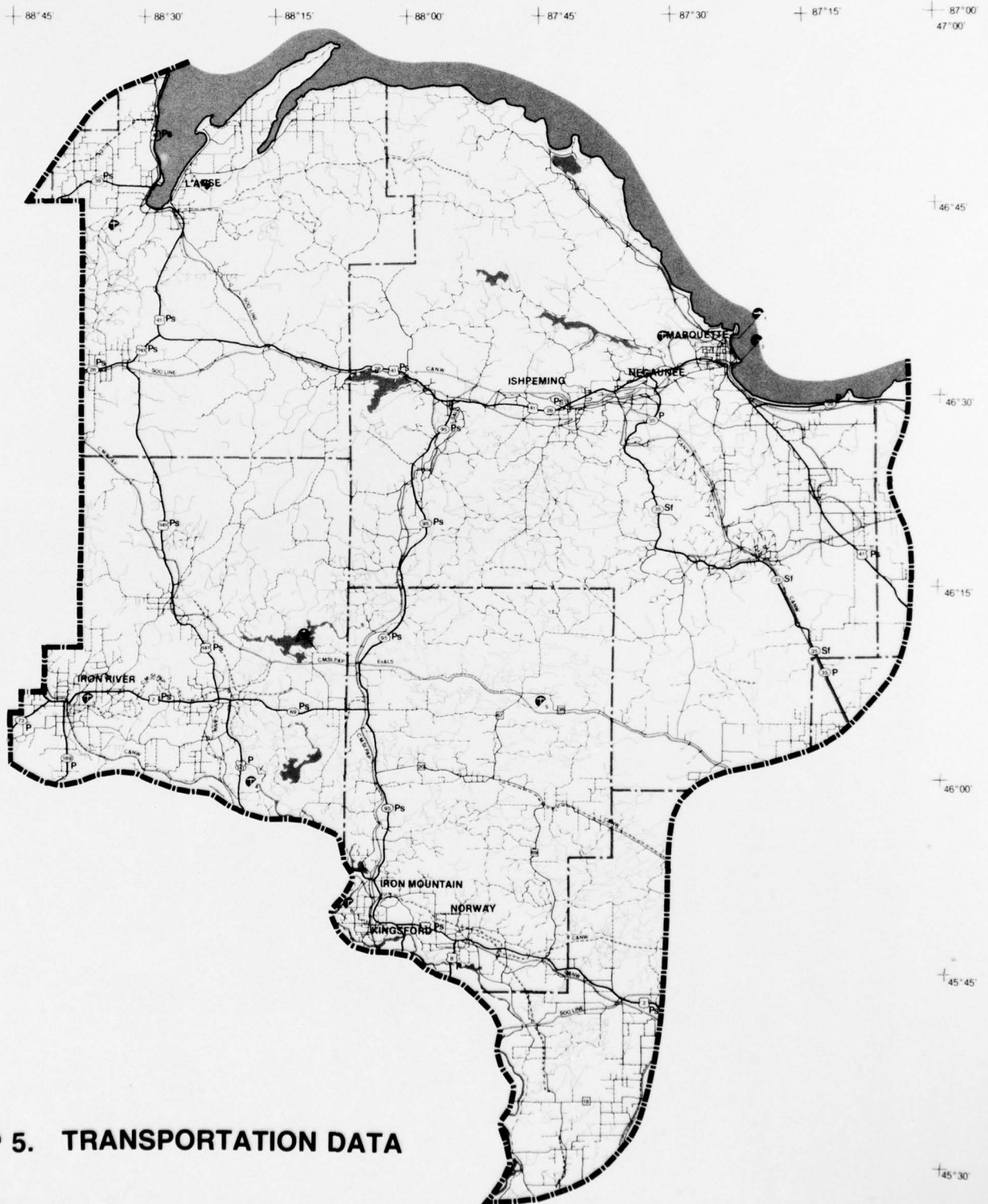
ROAD CLASSIFICATION
U.S. Numbered Highway
State Highway
Designated County Road



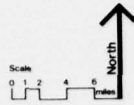
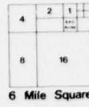
Airport



Harbor



UTILITIES



ELECTRICAL TRANSMISSION AND DISTRIBUTION SYSTEM

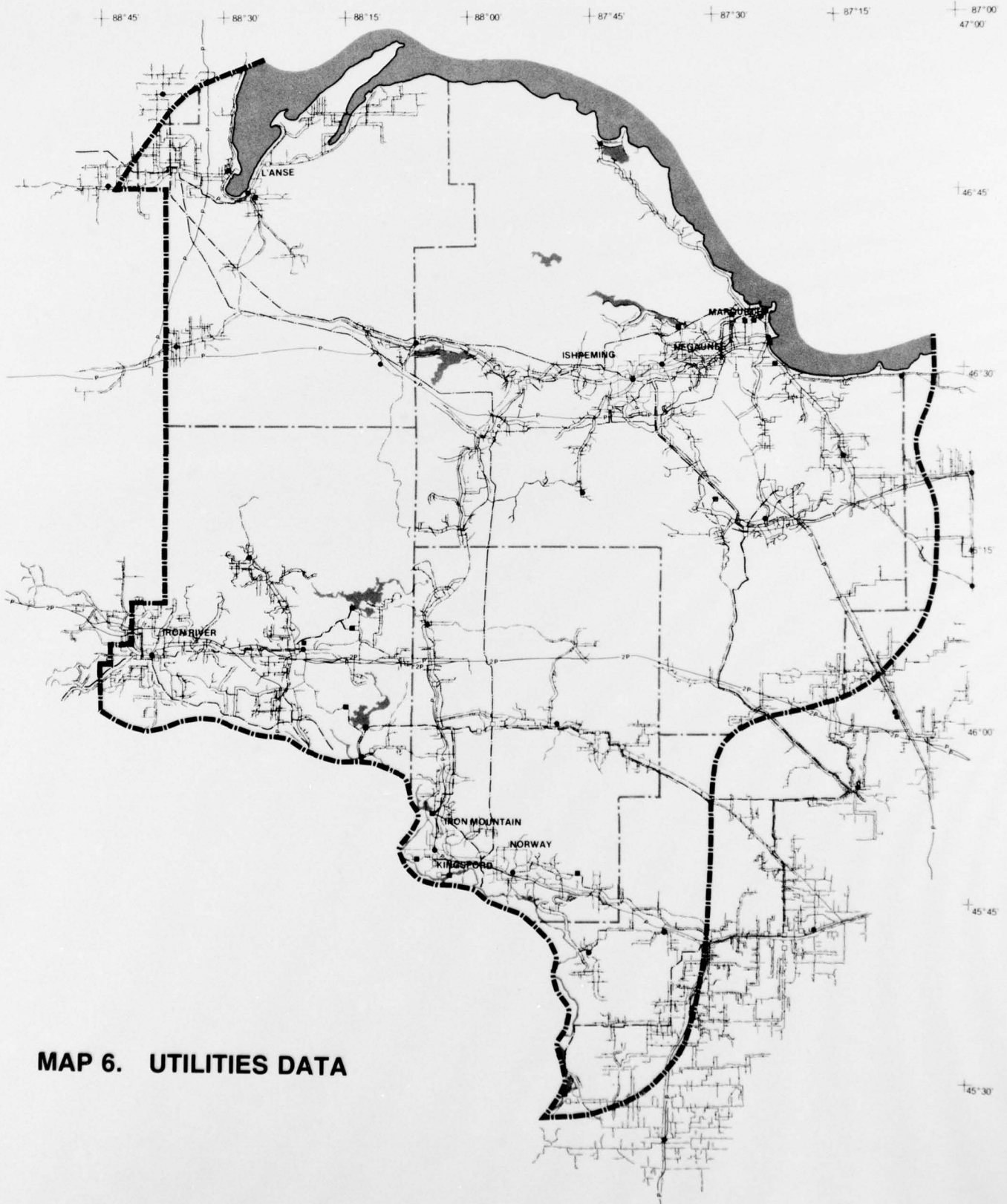
- Transmission Line (69kV-138kV)
- Three Phase Distribution Line (12.5kV-33kV)
- Single Phase Distribution Line
- Underground Line
- Substation
- Switching Station
- Generation Station

PIPELINES

- One Line
- Two Lines
- Three Lines

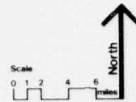
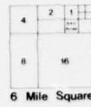
TELEPHONE SYSTEM

- Underground Cable
- Open Wire
- Aerial Cable
- Central Office



MAP 6. UTILITIES DATA

MINERAL EXTRACTION



- Areas Producing Metallic Minerals
- Dense Mine Areas (See Text)
- Areas Having Historic, Anticipated or Potential Significance for the Production of Metallic Minerals
- Iron Mines, Both Producing and Those with Past Production
- Clay Deposits Suitable for Brick or Tile
- Gravel and Sand Pits (P) and Rock Quarries (Q)
- Metallic Minerals (No Current Production):
 - Ag - Silver
 - Au - Gold
 - Be - Beryllium
 - Cu - Copper
 - Mn - Manganese
 - Mo - Molybdenum
 - Pb - Lead
 - Zn - Zinc

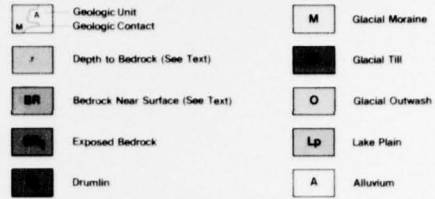


MAP 7. MINERAL EXTRACTION DATA

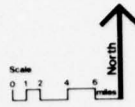
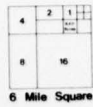




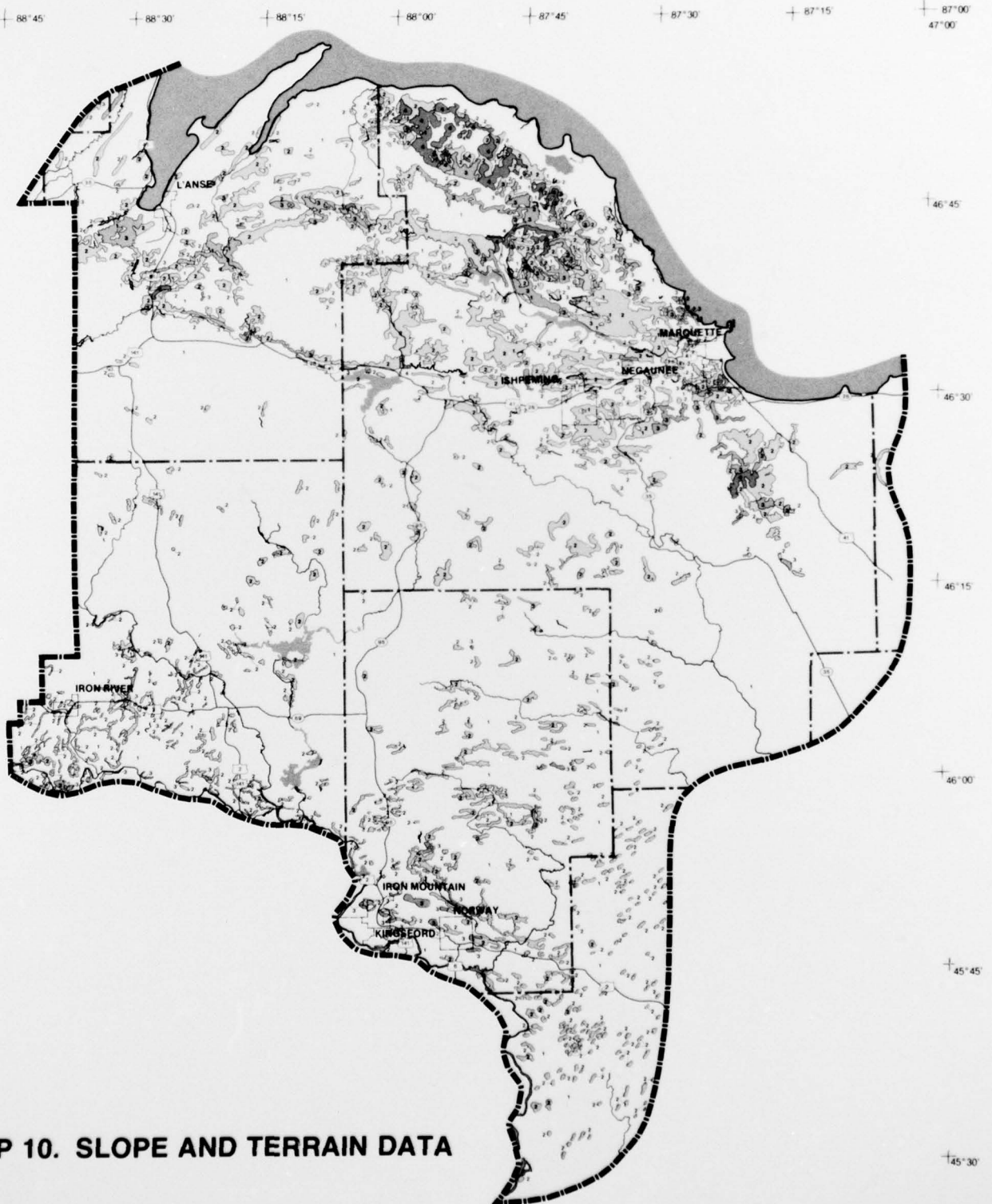
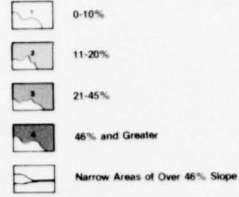
SURFICIAL GEOLOGY

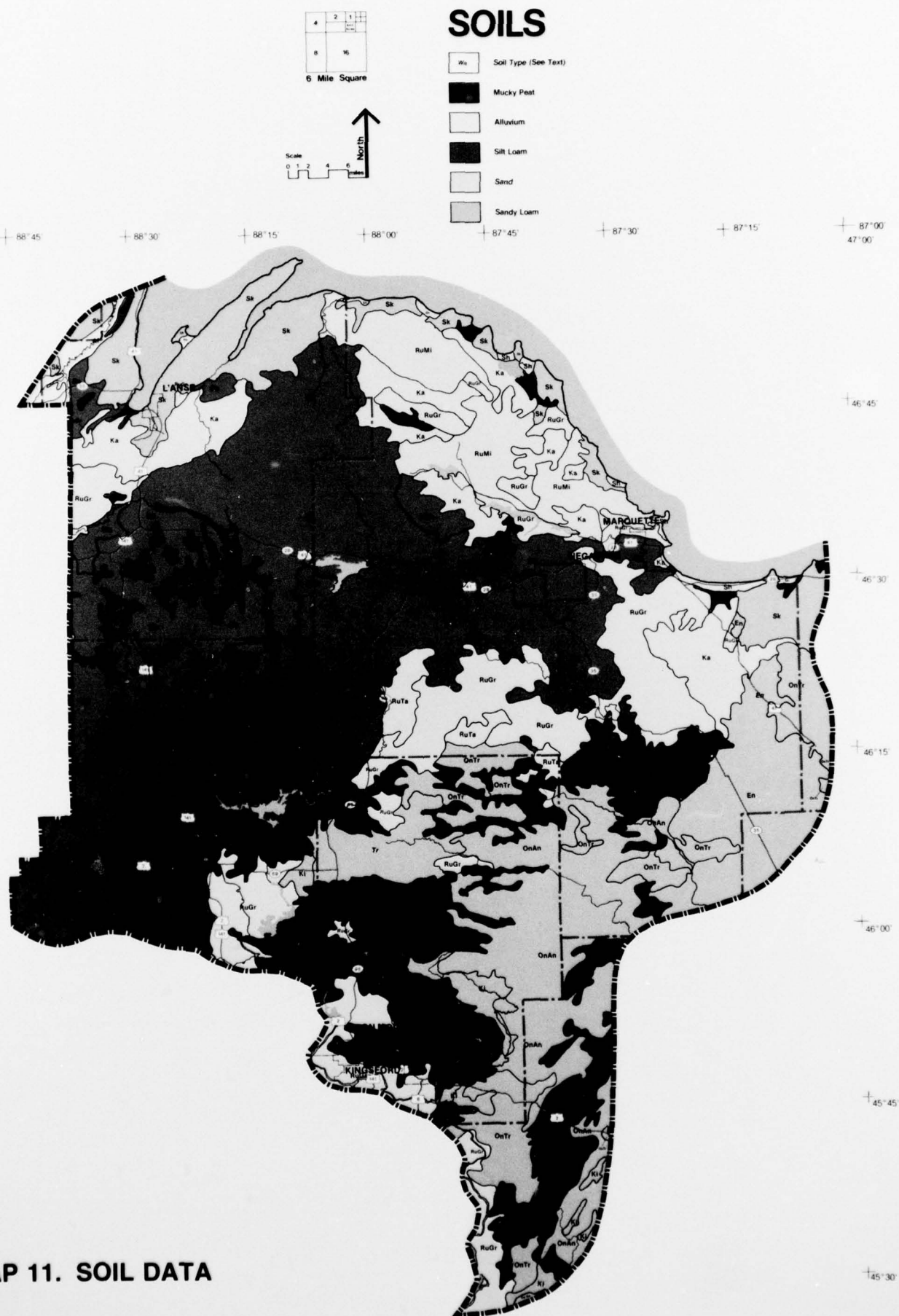


MAP 9. SURFICIAL GEOLOGIC DATA

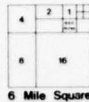


SLOPE

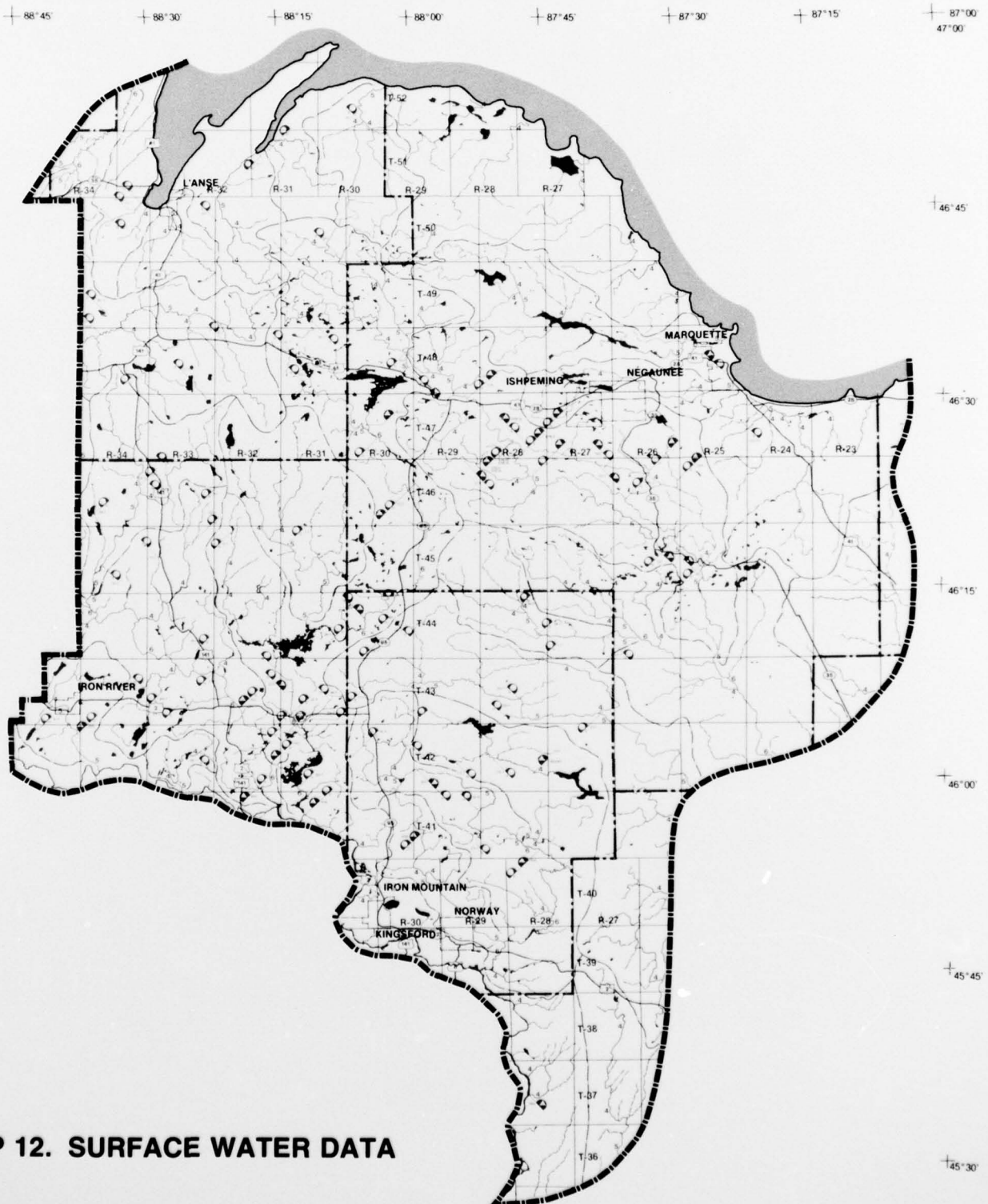




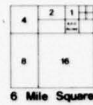
SURFACE WATER



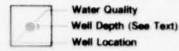
STREAM ORDER (See Text)



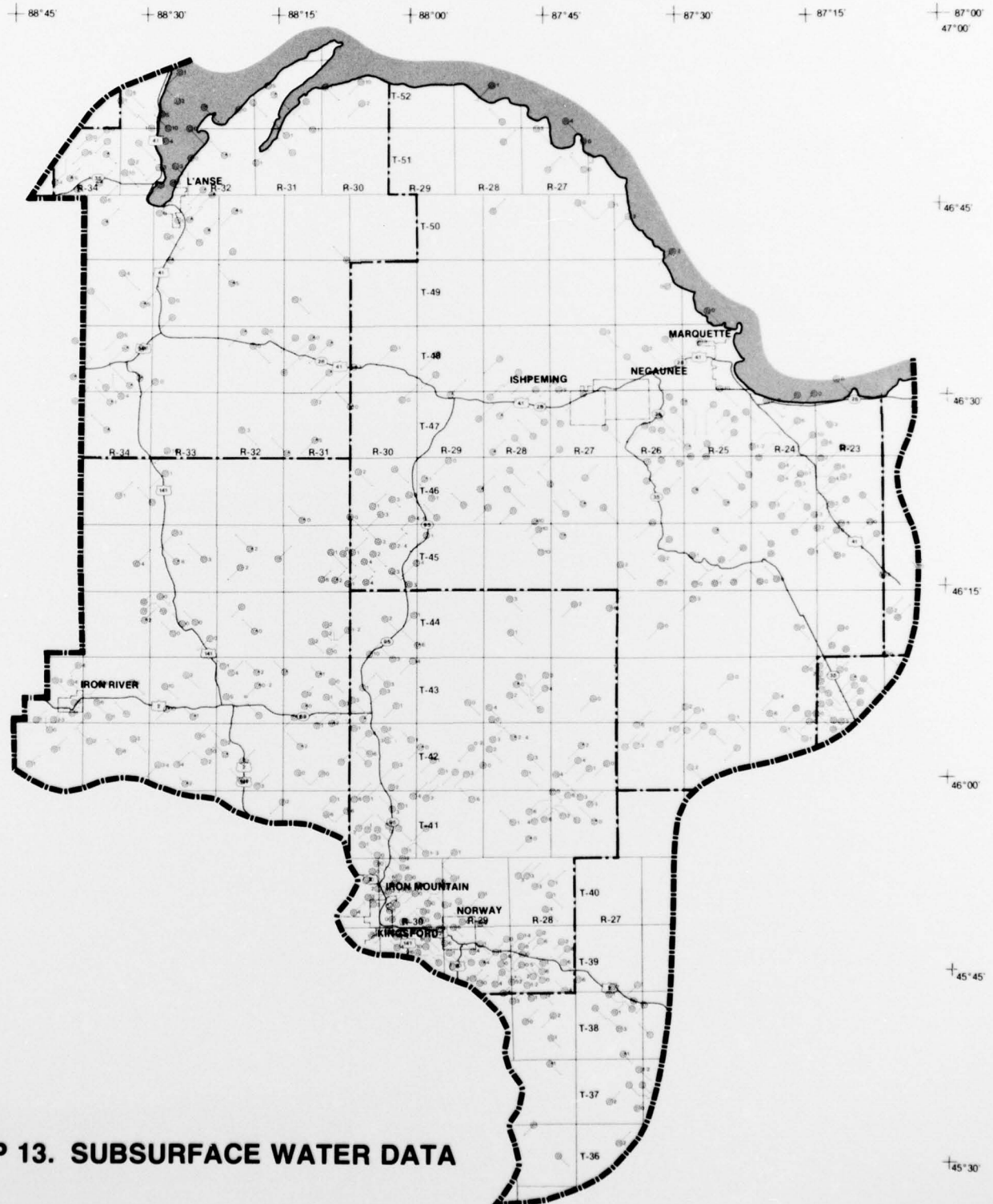
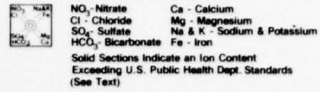
SUBSURFACE WATER



WELL LABELING SYSTEM



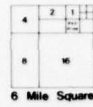
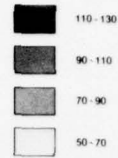
WATER QUALITY (Ion Content)



MAP 13. SUBSURFACE WATER DATA

CLIMATE

GENERALIZED SNOWFALL ZONES
(Average Annual Snowfall in Inches)

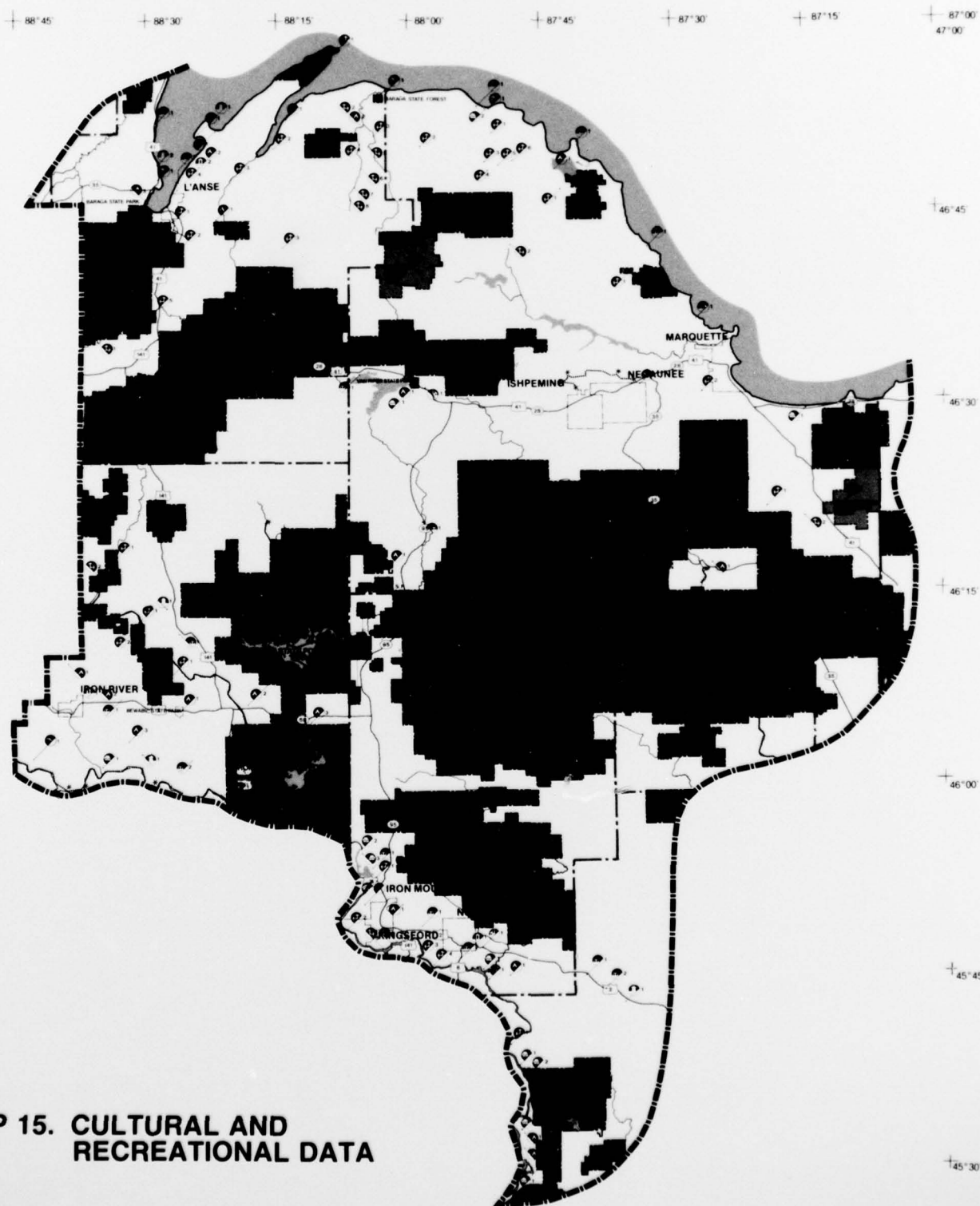


MAP 14. CLIMATIC DATA



CULTURAL & RECREATIONAL

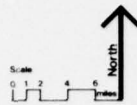
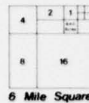
- | | |
|--------------------------------|-----------------------------------|
| Federal Forest Lands | Archaeological Sites |
| State Forest Lands | Park Sites with Campgrounds |
| State Park Lands | Small Park Sites and Picnic Areas |
| Canoe Routes | Ski Areas |
| Access Points | Recorded View Points |
| House and Small Historic Sites | |
| Industrial Historic Sites | |
| Historic Settlements | |





MAP 16. VEGETATION DATA

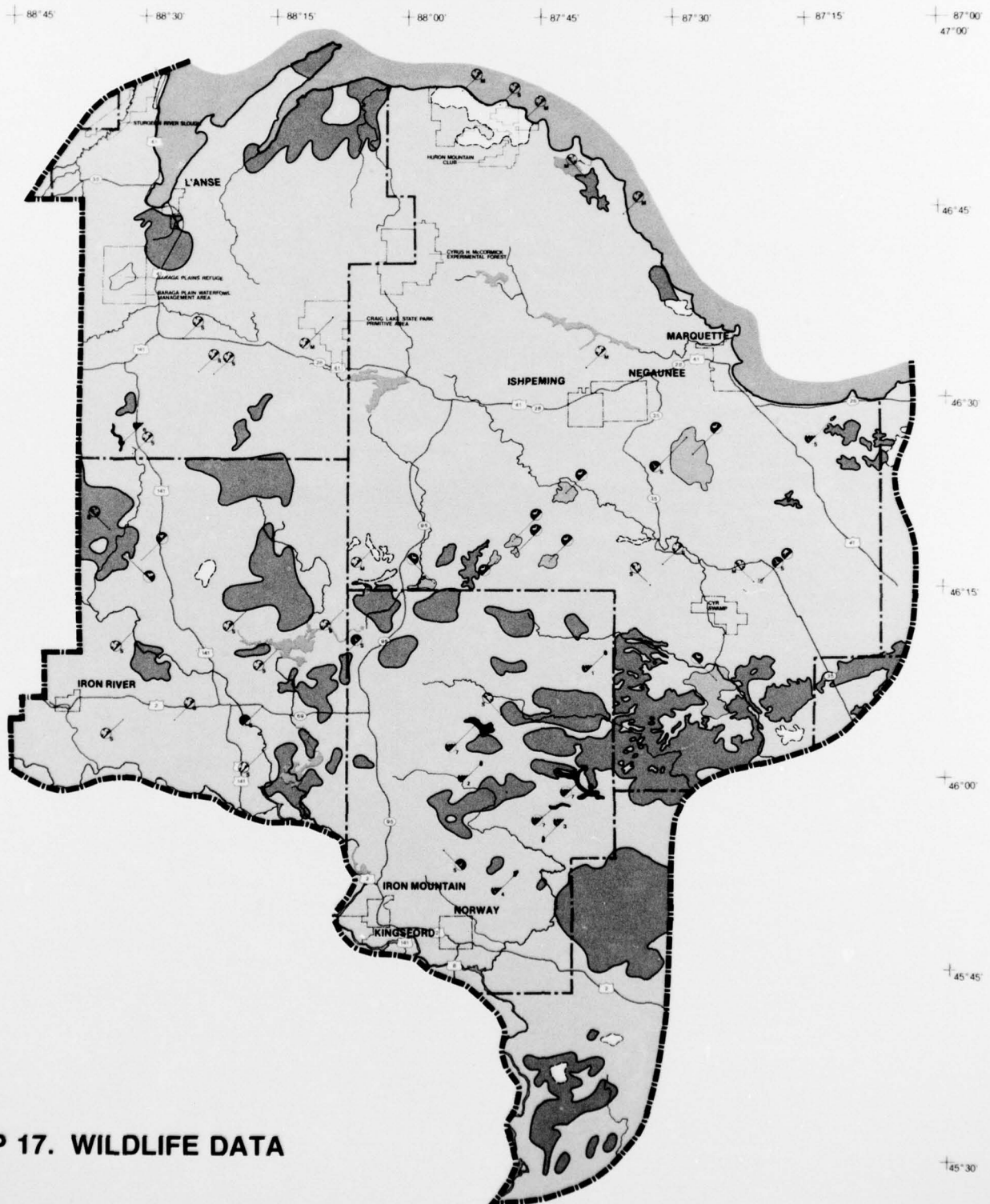
WILDLIFE



DEERYARD FOOD CONDITIONS

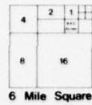
- Moderate
- Poor
- Single (S) or Multiple (M) Eagle Nest Sites
- Single (S) or Multiple (M) Osprey Nest Sites
- Lynx Sitings

- Heron Rookery
- Sharp Tail Grouse Management Areas
- Wildlife Flooding Areas
- Other Areas of Interest (See Text)



MAP 17. WILDLIFE DATA

R.O.W. OPPORTUNITIES



ELECTRICAL TRANSMISSION AND DISTRIBUTION SYSTEM



Transmission Line (69kV-138kV)
Three Phase Distribution Line (12.5kV-33kV)
Single Phase Distribution Line
Underground Cable
Substation
Switching Station
Generation Station

TELEPHONE SYSTEM

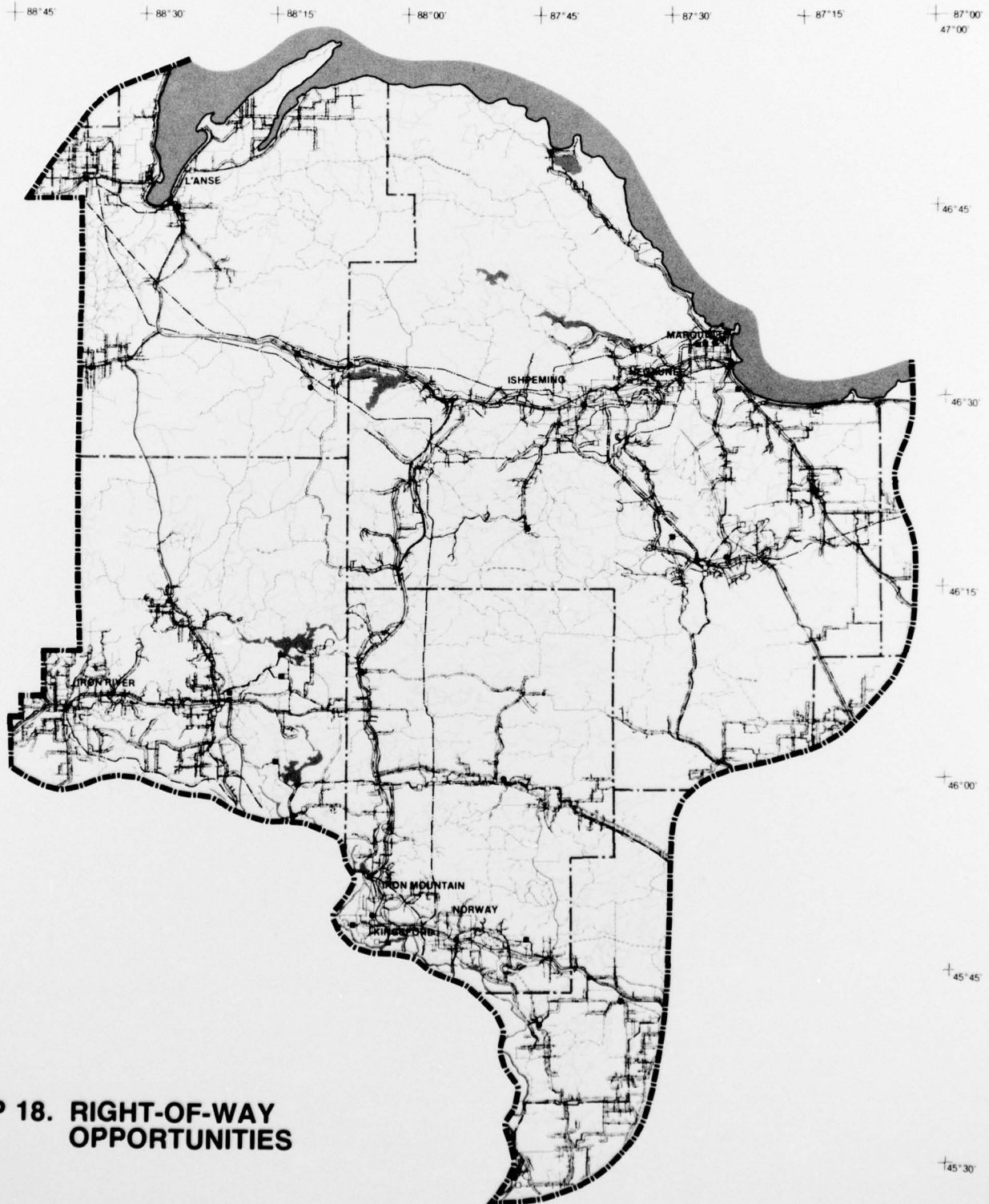


Underground Cable
Open Wire
Aerial Cable
Central Office

TRANSPORTATION

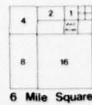


U.S. and State Highways
Other Paved Roads
Gravel Road
Good Dirt Road
Poor Dirt Road
Abandoned Railroad



MAP 18. RIGHT-OF-WAY OPPORTUNITIES

AVOIDANCE FEATURES



- Corporate Boundaries, Planned Developments or Special Preserve Areas
- Urban and Rural Settlements
- Railroads
- Pipelines
- Lakes and Reservoirs

- A Airports
- H Harbors
- C Cemeteries
- PF Prison Facilities
- M Mines

- Q Quarries and Pits
- CG Park Sites with Campgrounds
- P Small Parks and Picnic Areas
- S Ski Areas
- V Recorded View Points
- AS Archaeological Sites
- HS Historic Sites
- N Nesting Sites
- WF Wildlife Flooding Areas



MAP 19. AVOIDANCE FEATURES

ND
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